

What is Claimed is:

1. A semiconductor device comprising:
the first semiconductor device having a plurality of bumps which are formed on the backside surface thereof; and
the second semiconductor device having a plurality of terminals formed on the front surface thereof so as to be electrically connected with said bumps, said second semiconductor device being mounted on an area which is located on the backside surface of said first semiconductor device and has no bump therein;
wherein the height of said second semiconductor device measured from the backside surface of said first semiconductor device is made lower than the height of said bump.
2. A semiconductor device as claimed in claim 1, wherein said second semiconductor device is mounted on the first semiconductor device such that the surface provided with no terminal of said second semiconductor device is joined to the backside surface of said first semiconductor device with the help of an adhesive.
3. A semiconductor device as claimed in claim 2, wherein there is provided a recess which is formed in a predetermined area provided with no bump of said first semiconductor device, and said second semiconductor device is mounted on said recess.
4. A semiconductor device as claimed in claim 3, wherein said recess is formed as a shallow spot facing portion which is flatly shaved so as to fit the size of said second semiconductor device.
5. A semiconductor device as claimed in claim 2, wherein said adhesive loses the adhesive strength at a temperature employed in the

heat treatment for packaging said second semiconductor device on said first semiconductor device.

6. A semiconductor device as claimed in claim 6, wherein said adhesive loses the adhesive strength thereof at a temperature of 200°C or more.

7. A semiconductor device as claimed in claim 1, wherein said second semiconductor device is mounted on the first semiconductor device such that terminals of said second semiconductor device are joined to the backside surface of said first semiconductor device by means of soldered joints.

8. A semiconductor device as claimed in claim 7, wherein a high heat-conductive adhesive member is stuck on the backside of the surface provided with terminals of the second semiconductor device.

9. A semiconductor device as claimed in claim 8, wherein said adhesive member is a sheet-like member having a predetermined thickness.

10. A semiconductor device as claimed in claim 7, wherein the melting point of said soldered joint is selected to be higher than a temperature employed in the heat treatment for packaging said second semiconductor device on said first semiconductor device.

11. A semiconductor device as claimed in claim 7, wherein said soldered joint is selected to have a melting point of 200°C or more.

12. A semiconductor device as claimed in claim 1, wherein said

second semiconductor device is mounted on the first semiconductor device such that the backside surface of said second semiconductor device are joined to the backside surface of said first semiconductor device with the help of a sealing resin.

13. A semiconductor device as claimed in claim 1, wherein said first semiconductor device is a CSP semiconductor device.

14. A semiconductor device as claimed in claim 1, wherein said first semiconductor device is a BGA semiconductor device.

15. A semiconductor device as claimed in claim 1, wherein said second semiconductor device is a CSP semiconductor device.

16. A semiconductor device as claimed in claim 1, wherein the height of said second semiconductor device measured from the backside surface of said first semiconductor device is substantially equal to the height of said bump.

17. A method for manufacturing a semiconductor device including the first semiconductor device having a plurality of bumps which are formed on the backside surface thereof, and the second semiconductor device having a plurality of terminals which are formed on the front surface thereof and are to be electrically connected with said bumps, said second semiconductor device being mounted on an area which is located on the backside surface of said first semiconductor device without having any bump formed thereon, said method comprising the steps of:

forming a plurality of said bumps on the backside surface of the base plate for said first semiconductor device;

placing a plurality of said second semiconductor devices on a mounting tape;

mounting a plurality of said second semiconductor devices placed on said mounting tape on said base plate; and

dividing said base plate thereby obtaining a plurality of finished semiconductor devices including the first and second semiconductor devices.

18. A method for manufacturing a semiconductor device as claimed in claim 17, the step of placing a plurality of second semiconductor devices on said mounting tape further comprising the steps of:

forming a plurality of said terminals on a semiconductor substrate;

applying a sealing resin to said semiconductor substrate to cover the entire surface thereof on which said terminals are exposed and polishing said sealing resin surface after the sealing resin has been completely cured until all the surfaces of terminal are exposed;

forming a plurality of slits by cutting in said sealing resin until the cutting goes into said semiconductor substrate by a predetermined depth;

applying an adhesive retaining tape to the surface of said sealing resin;

polishing the backside surface of said semiconductor substrate until reaching all the bottoms of slots;

sticking a mounting tape on said polished surface of said semiconductor substrate; and

removing said adhesive retaining tape.

19. A semiconductor device as claimed in claim 17, wherein said first semiconductor device is a CSP semiconductor device.

20. A semiconductor device as claimed in claim 17, wherein said first semiconductor device is a BGA semiconductor device.

21. A semiconductor device as claimed in claim 17, wherein said second semiconductor device is a CSP semiconductor device.